



COOLELF PLUS -37°C

Ready-to-use coolant • Hybrid



DESCRIPTION

COOLELF PLUS -37°C is a “long life” coolant based upon monoethylene glycol and inorganic corrosion inhibitors (silicates), a long proven coolant and heat transfer technology. It contains also an organic inhibitor, it is a semi-organic technology.

COOLELF PLUS -37°C can be used in all cooling systems of combustion engines in cars, vans, trucks, buses, constructing machines and agricultural tractors.

COOLELF PLUS -37°C is the semi-organic product in our range of coolants.



SPECIFICATIONS

COOLELF PLUS -37°C meets the *international specifications* for antifreezes:

- AFNOR NFR 15-601
- ASTM D3306
- ASTM D4656
- ASTM D4985
- BS 6580

The antifreeze used in **COOLELF PLUS -37°C** is *officially approved* by the following manufacturers:

- VW TL-774 C (G 11)
- AUDI TL-774 C (G 11)
- SEAT TL-774 C (G 11)
- SKODA TL-774 C (G 11)
- BMW GS 94000
- PORSCHE TL-774 C (G 11)
- FIAT CHRYSLER MS-7170
- GM-OPEL GME L1301

COOLELF PLUS -37°C *meets the requirements* of:

- FORD
- MB 326.0
- FIAT-LANCIA 9.55523
- LADA TTM VAZ 1.97.717-97
- CUMMINS 85T8-2
- IVECO standard 18-1830
- MAN 324 Type NF
- MTU MTL 5048
- PERKINS
- VOLVO 128 6083 /002

CHARACTERISTICS

COLOUR	-	BLUE GREEN
DENSITY AT 15 °C	ASTM D1122	1.079
PH	ASTM D1287	8.2
ALKALINITY RESERVE (PH 5.5)	GFC PR L-110-03	8.0ML HCl 0.1N
TEMPERATURE AT WHICH THE FIRST ICE CRYSTALS OCCUR	ASTM D1177	-38°C

The typical characteristics mentioned represent mean values

TOTAL LUBRIFIANTS

Immeuble Spazio
562, avenue du Parc de l'île
92029 Nanterre cedex
France

COOLELF PLUS -37°C

Sheet updated: 11/15



This coolant used in accordance with our recommendations and for the application for which it is intended does not represent a special hazard. A safety data file conforming to the requirements of current EC legislation is available from your local trade consultant.



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APPLICATIONS

PROTECTION ALL YEAR ROUND

COOLELF PLUS -37°C ensures maximum protection against freezing, until -37°C.

READY TO USE PRODUCT

COOLELF PLUS -37°C is ready for use, as a mix with demineralised water.

LIFETIME

Recommended oil change interval:

- at least **250 000 km** (3000 hours) in cooling systems of commercial vehicles,
- at least **100.000 km** (800 hours) in cooling systems of passenger cars.
- It is recommended to drain the cooling liquid after this mileage or every 3 years (whatever occurs first).

CUSTOMER BENEFITS

LONG-TERM PROTECTION AGAINST CORROSION OF METALS AND OF ALL TYPE OF MATERIALS

COOLELF PLUS -37°C offers an adequate solution against corrosion problems of all the materials in the cooling system

The additives in **COOLELF PLUS -37°C** give the coolant:

- + A reserve of alkalinity (to neutralise the acids resulting from the combustion gases)
- + Resistance to foaming
- + Compatibility with hard water (maximum 40°F).

COOLELF PLUS -37°C is inert to elastomeric seals and paints.

EXCELLENT QUALITY RATIO

HSE

All antifreezes and coolants based upon monoethylene glycol are regarded as special industrial wastes and must be disposed of in approved centres for environmental reasons.

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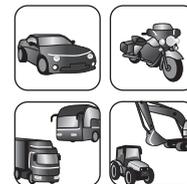


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PERFORMANCES

■ ASTM D1384 : GLASSWARE CORROSION TEST (336H/88°C/33%VOL)

	WEIGHT LOSS (MG/COUPON)					
	copper	solder	brass	steel	cast iron	aluminium
ASTM D3306 LIMITS	10	30	10	10	10	30
COOLELF PLUS	2	-3	2	-1	-1	0.0

■ ASTM D4340: ALUMINIUM HEAT REJECTION TEST (25% VOL)

	WEIGHT LOSS (MG/CM ² /WEEK)					
ASTM D3306 LIMITS	1.0					
COOLELF PLUS	< 0.1					

■ ASTM D2570: SIMULATED SERVICE TEST (HRS/°C/25%VOL)

	WEIGHT LOSS (MG/CM ²)					
	copper	solder	brass	steel	cast iron	aluminium
ASTM D3306 LIMITS	20	60	20	20	20	60
COOLELF PLUS	7	-1	6	-1	-3	1

■ GM-OPEL: HOT FINGER TEST

	WEIGHT LOSS (MG/COUPON)					
	copper	solder	brass	steel	cast iron	aluminium
44% solution						
GM LIMITS	10	30	10	10	10	30
COOLELF PLUS	10	20	10	10	10	20
25% solution						
GM LIMITS	10	20	10	10	10	20
COOLELF PLUS	2	-3	2	-1	-1	0

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